

## Neuroscience and Coaching: Impact of Coaching on a Leader’s Three Brains

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Yes, we all have three brains. Now that I have your attention, or at least the attention of your head brain, what do I mean by three brains? A brain is defined as a complex and functional neural network that has a memory, intelligence and control over the decisions we make. Scientific research has shown that we humans have three brains – the one in our head (cephalic or central nervous system), the one in our heart (cardiac nervous system) and the one in our gut (enteric nervous system).

Ancient philosophy knew of the presence of three brains. In Aristotle’s masterpiece Rhetoric, he defines three ways to persuade an audience: Logos (an appeal to logic or head brain), pathos (an appeal to emotion or heart brain), and ethos (credibility of the speaker or gut brain).<sup>1</sup> He is even quoted: “The brain is not solely in the head. The brain is in the heart and more.”<sup>2</sup> Going even further back, we have the Tao practice that says: Train all the organs; train them how to do different things.<sup>3</sup> Scientists “approximate that the Upper Brain in the head can use up to 80% of the body’s energy, which means that there is only 20% remaining for the functioning of all of the other organs and bodily processes.”

Fast forward to more recent times, in 1900 L. Frank Baum published *The Wizard of Oz*.<sup>4</sup> Three characters in this book were the Scarecrow, who was looking for a brain; the Tin Woodsman who wanted a heart; and the Cowardly Lion who wanted courage – or head, heart, and guts.<sup>5</sup> This same triad is apparent when we reflect on what people say: trust your gut... listen to your heart... use your head.

*“Since the time of the Enlightenment, Western culture has increasingly valued the wisdom of the head-brain – conscious thought and control of thought – over alter- native perceptual and integrative systems in the body. The Cartesian formula ‘I think, therefore I am’ is the sort of logical formulation that epitomizes Western thought, which gives the head-brain primacy over other neural systems – brains – that exist in our bodies. Our educational systems reinforce this prejudice...”<sup>6</sup>*

In the late 20th century, science finally caught up with what we already knew. Though research on the gut-brain began in the late 1940s by Michael Gershon, it wasn’t until the publication of his 1998 book *The Second Brain* that the idea became mainstream and the field of neuro-gastroenterology was formed.<sup>7</sup> Research on the heart brain was published in the late 1970s and popularized by Paul Pearsall’s 1998 book *The Heart Code*.<sup>3</sup> Subsequent research proposes “that the heart’s electromagnetic field provides a global synchronizing signal for the entire body. Even more interesting, this electromagnetic field also impacts the emotions of others within close proximity.”<sup>8</sup>

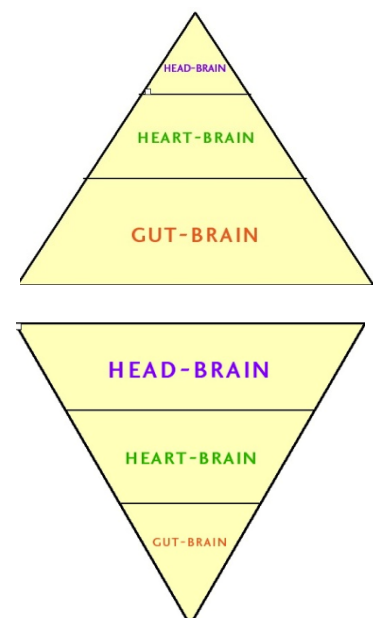
### What is the relationship of the brains?

In the Western world we have revered the head-brain as the most influential followed by the heart and to a lesser extent the gut. According to Mark Chandlee Taylor, “if we were to illustrate the relative value given to the brains of the head, heart, and gut according to the traditional Western point of view, we would have an inverted pyramid...”<sup>6</sup>

Taylor suggests a “realigned model– one that draws on both anatomic and experiential analysis - proposes that a better foundation for our humanity is to right the pyramid, acknowledging our gut-brain as our strong and stable foundation, our heart-brain at ease, resting on the wisdom of the gut, and our head-brain at the top, in a smaller, less dominant role than in the old model.”<sup>6</sup>

### What are the core competencies of each brain?

- **Gut Brain:** “Is your core identity and contains the deepest levels of the self. You rely on your gut often for quick decision-making; that fight or flight response (safety or risk). You may find courage, fear, action, and grit down there.”<sup>9</sup>



- **Heart Brain:** *“Is used mostly for processing emotions (joy, jealousy, anger, hate, love, lust, compassion, empathy). It helps you to discover what is most important to you in life, priorities, and values. It helps you to connect or disconnect with others based on similarities or differences in those values.”<sup>8</sup>*
- **Head Brain:** *“Is primarily used for cognitive perception and pattern recognition. You use your head to reason, to analyze and to synthesize information that comes in. One way your head makes meaning of things is through language (verbal, written, body), telling stories and using metaphors.”<sup>8</sup>*

Alignment of these three brains creates a ‘flow’ state where each brain is functioning at its efficient best. Gregory Stebbins proposes that this flow state is wisdom, defined as “an integration of head, heart and hunch [gut] tempered through the experience of the individual ... a state of being that emerges from within the leader from the experience of integrating head, heart and hunch [gut].”<sup>8</sup>

## What does this mean to me as a coach?

*“Coaching is customized to the coach, the person being coached, the context, and the specific conditions that led to its initiation.”<sup>10</sup>* Given that the coach and the person being coached each have three brains, and that alignment of these brains creates a ‘flow’ state, a holistic coaching approach is recommended. This calls for the coach and leader to use all three brains or at least consider the input from each.

Begin with deep listening from your gut, heart, and head. For example, your leader is sharing with you a work situation (context) that involves a challenging assignment with a short deadline that may not be value-added (situation). As coach you have a hunch that there is more to this situation (gut), you feel compassion for the exhaustion in her voice (heart), and note the elements of short deadline for non-value-added task (head). You now have a choice to respond to one, two, or all three brains. An integrated response might be “I hear exhaustion in your voice (heart) at the challenge of this assignment (head) and yet I sense there is more going on here (gut). Next, pause for the leader to take this in each of her brains.

What if your leader makes decisions or responds to situations from only one brain and ignores the others? This can occur when under pressure or from habit, and may be likened to “overdrive” when one brain is overused or used inappropriately in exclusion of the other brains.

- **Gut Brain Overdrive:** Reactive, impulsive, and action oriented. However, this is useful in an emergency, or when safety or survival is threatened.
- **Heart Brain Overdrive:** Concern about self-image, impact on others, and lives of others. May end up waiting, hoping, and dreaming - or show emotions too obviously and readily.
- **Head Brain Overdrive:** Plan and prepare, focus on what could go wrong, too much visioning or try to do it all. May be viewed by others as cold, impersonal, and calculating.

As a coach, when faced with a possible overdrive situation, consider asking one of the following questions: What does your gut tell you? How does your heart feel? What does your head say?

A valuable resource for understanding the characteristics of each brain as a way to develop leaders is *Head, Heart, and Guts: How the World’s Best Companies Develop Complete Leaders*. Each brain is effective in specific areas and activities (as described in the sidebar) and when the three brains work together a leader is said to be a complete leader.

### Head Leadership

- Rethinking the way things are done
- Reframing boundaries when necessary
- Understanding the complexities of a global world
- Thinking strategically without losing sight of short-term goals
- Looking for ideas inside and outside a company, wherever they can be found
- Developing a point of view<sup>5</sup>

### Heart Leadership

- Balancing people and business needs
- Creating trust
- Developing true compassion in a diverse workplace
- Creating environments in which people can be truly committed
- Knowing what’s important
- Understanding and overcoming potential derailers<sup>5</sup>

### Guts Leadership

- Taking risks with incomplete data
- Balancing risk and reward
- Acting with unyielding integrity in spite of the difficulty
- Tenaciously pursuing what’s required for success
- Persevering in the face of adversity
- Not being afraid to make tough decisions<sup>5</sup>

Given that coaches are also leaders, your assignment is to look inside and determine if you have an over reliance on one of your brains. Remember, the “functions of the brain have been categorized in three levels. The first level governs a lot of your instinctual reactions, the second level is involved in the processing of emotions and memory, and the third level adds thinking, reasoning, and the ability to project into the future a plan.”<sup>11</sup> If you have an over reliance on one or two of your brains, practice and integrate trusting your gut, listening to your heart, and using your head. Remember the pyramid – from a solid foundation in your gut brain, you connect with others emotionally from the heart brain, and give your logical head brain a much needed rest.

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